

NON-PUBLIC?: N
ACCESSION #: 8811010412
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Braidwood Unit 2 PAGE: 1 of 4

DOCKET NUMBER: 05000457

TITLE: Turbine Trip caused by Hi-Hi S/G Level
EVENT DATE: 09/23/88 LER #: 88-026-00 REPORT DATE: 10/24/88

OPERATING MODE: 1 POWER LEVEL: 038

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Paul Stanczak, Technical Staff Engineer TELEPHONE: 815-458-2801
EXT. 2486
COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE TO NPRDS:

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

In response to an anomaly identified on one of the 2A steam generator level transmitters it was determined that simultaneous data collection was required. The method was reviewed by the appropriate personnel involved with the task and approval was given to start. At 1347 when the second channel of the second phase of data collection was attached, a turbine trip and reactor trip occurred. Cause of the event was personnel error in that the review process failed to identify the normally grounded connection on the test equipment. Contributing factors were: 1) equipment had been used in the past however, not the configuration, 2) proper communications between the personnel performing the task were not maintained, and 3) connection on the test equipment was not properly labelled. The test equipment was removed and the plant stabilized. Event has been formally reviewed with the personnel involved and will be formally reviewed with station personnel by upper station management stressing the lessons learned from this event in the areas of communications, work practices and concurrent activities. Other action items relative to the startup testing program will be reviewed to ensure appropriate dispositioning. The test equipment will be properly labelled. No previous occurrences.

A. Plant Conditions Prior to Event:

Unit: Braidwood 2; Event Date: September 23, 1988; Event Time: 1347

Mode: 1 - Power Operation; Rx Power: 38%

RCS/AB! Temperature/Pressure: NOT / NOP

B. Description of Event:

Unit 2 FW700 Post Test Review Board (TRB) established that an anomaly exists on the four (4) level transmitters for the 2A steam generator. One of the 4 transmitters appeared to be reading differently than the other 3. TRB comment 03 stated that 2LT556 is suspect. Action Item Record (AIR) number 88-262 was written to track closure of the anomaly.

Nuclear Work Request (MWR) A25065 was written on August 23, 1988 to troubleshoot and repair 2LT556. It was determined that the loop and transmitter were in calibration. A Unit 2 containment entry was made to determine if a significant difference in level tap elevation existed. The review of the data indicated that the tap elevation difference was insignificant. Based on these results, it was decided that data should be obtained on all 4 level transmitters simultaneously using a Nicolet 4 channel oscilloscope.

This proposed method of data gathering was reviewed by the work group Instrument Maintenance (IM) technicians, the Shift Test Director (STD), Station Control Room Engineer (SCRE), Nuclear Station Operator (NSO) and Shift Engineer (SE). The review focused on the available method to obtain accurate data which was to monitor all 4 loops simultaneously. Data had been successfully gathered from these test points in the past with data logging equipment. Approval was given to obtain the data from TP2 and then TP1 on all four loops on the 2A steam generator.

Head phone communications were established between the Control Room and the Auxiliary Electrical Equipment Room. The Nicolet was successfully attached to TP2 and the data was obtained. Based on the completion of this phase of data collection and the belief that the same actions would be repeated for TP1, head phone communications were terminated.

Concurrent with the data gathering effort, the Unit 2 NSO's attention was shifted to secondary plant evolutions.

The IMs and STD started to attach the test equipment to TP1. When the first channel of test equipment was attached to TP1, the loop failed high due to normal internal ground on the test equipment. The Unit 2 NSO recognized

that the bistables had tripped and prior to communicating with the Auxiliary Electrical Equipment Room, the second channel was attached. This resulted in the completion of the 2/4 coincidence logic for P-14, turbine trip and reactor trip at 1347 on September 29, 1988.

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The appropriate NRC notification via the ENS phone system was made at 1550 on September 29, 1988 pursuant to 10CFR50.72(b)(2)(ii).

This event is being reported pursuant to 10CFR50.73(a)(2)(iv) - any event or condition that resulted in manual or automatic actuation of any engineered safety feature, including the reactor protection system.

C. Cause of Event:

The cause of the event was personnel error by the maintenance personnel. The review process failed to identify the normally grounded connection on the test equipment.

Contributing to this event were:

1. The equipment had been used in the past; however, the configuration required for this check had not been previously used.
2. Proper communications between the personnel performing the check in the Auxiliary Electrical Equipment Room and the Control Room were not maintained throughout the duration of the testing.
3. The connection on the equipment was not properly labelled to indicate that the connection was grounded.

D. Safety Analysis:

There was no effect on plant or public safety as all systems operated as designed. Under worst case conditions of operating at full power and a loss of steam flow for steam generator, the results would have been the same as in this event. The other 3 steam generator steam flow instruments were operable throughout this event.

E. Corrective Actions:

The immediate corrective actions were to remove the test equipment and stabilize the plant.

This event has been formally reviewed with the personnel involved by upper station management.

This event will be formally reviewed with station personnel by upper station management stressing the lessons learned from this event in the areas of communications, work practices and concurrent activities. This will be tracked to completion by action item 457-200-88-16401.

A review of other action items relative to the startup testing program will be performed to ensure appropriate dispositioning. This will be tracked to completion by action item 457-200-88-16402.

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The equipment connection will be properly labelled indicating that it is grounded. This will be tracked to completion by action item 457-200-88-16403.

F. Previous Occurrences:

There have been previous occurrences of a personnel error resulting in a reactor trip. The corrective actions were implemented addressing both root and contributing causes. Previous corrective actions are not applicable to this event.

G. Component Failure Data:

This event was not caused by component failure nor did any components fail as a result of this event.

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Commonwealth Edison
Braidwood Nuclear Power Station
Route 1, Box 84
Braceville, Illinois 60407
Telephone 815/458-2801

October 28, 1988
BW/88-1345

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Dear Sir:

The enclosed Licensee Event Report from Braidwood Generating Station is being transmitted to you in accordance with the requirements of 10CFR50.73(a)(2)(iv) which requires a 30 day written report.

This report is number 88-026-00; Docket No. 50-457.

Very truly yours,

R. E. Querio
Station Manager
Braidwood Nuclear Station

REQ/AJS/jab
(7126z)

Enclosure: Licensee Event Report No. 88-026-00

cc: NRC Region III Administrator
NRC Resident Inspector
INPO Record Center
CECo Distribution List

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